Research Article

Effect of Healthcare Service Quality and Price on Patient Satisfaction

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Abstract
Healthcare services is a place that is needed by all levels of society. Good service will influence patient satisfaction. Patient satisfaction in health services is very important to pay attention to because it can describe the quality of service at the health service location. Knowing patient satisfaction is very useful for the relevant agencies in order to evaluate programs that are being implemented and to find which parts need improvement. This study aims to analyze the influence of service quality and price on patient satisfaction at Kartika Husada Jatiasih Hospital. This type of research is a survey. The analytical method used in this research uses linear and multiple regression analysis models. The research results show that service quality has a positive and significant effect on patient satisfaction at Kartika Husada Jatiasih Hospital. Price has a positive and significant effect on patient satisfaction at Kartika Husada Jatiasih Hospital. Service quality and price have a positive and significant effect on patient satisfaction at Kartika Husada Jatiasih Hospital. Managerial implications include holding regular training for all hospital staff and implementing an effective feedback system to get input from patients about the quality of service.

Keywords: Quality of service, price, patient satisfaction

JEL Classification: L8, D3, M4


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1. Introduction
The quality of healthcare services serves as a crucial performance indicator for health service providers. Healthcare is a fundamental societal need and a right guaranteed to every citizen by the constitution. Every nation recognizes that health is its most valuable asset in achieving prosperity. Consequently, improving health services represents an investment in human resources to foster a prosperous society (Daryanto and Setyabudi, 2014). In line with reforms in the health sector, hospitals increasingly prioritize health promotion and prevention efforts while ensuring proper treatment and rehabilitation. Furthermore, hospital healthcare services are designed to benefit not only individuals (patients) but also families and all segments of society, aiming to provide comprehensive and holistic health services.
The quality of healthcare services serves as a crucial performance indicator for health service providers. Healthcare is a fundamental societal need and a right guaranteed to every citizen by the constitution. Every nation recognizes that health is its most valuable asset in achieving prosperity. Consequently, improving health services represents an investment in human resources to foster a prosperous society (Daryanto and Setyabudi, 2014). In line with reforms in the health sector, hospitals increasingly prioritize health promotion and prevention efforts while ensuring proper treatment and rehabilitation. Furthermore, hospital healthcare services are designed to benefit not only individuals (patients) but also families and all segments of society, aiming to provide comprehensive and holistic health services.

Nurses in hospitals play a role in providing quality service and good performance to patients. By serving and caring for patients of various characters, nurses are required to always listen to patients' voices and complaints and respond to every patient's wishes, hopes, and even demands. This nursing will have an impact on patient satisfaction. Meanwhile, nurse performance is the quality of health services that society demands for hospital services (Asriwati et al., 2016). Service quality has a close relationship with patient satisfaction, which means that patients have hopes and perceptions about getting services (Mu’ah, 2014).

Patient satisfaction will be achieved when the quality of service meets the patient's expectations, desires, and needs (de Araujo, 2022). Health services in hospitals are an important aspect of the healthcare system that has a direct impact on patient satisfaction. A theoretical review to determine the factors that influence the quality of hospital services has been carried out (Anastasia & Mulyanti, 2023). Patient satisfaction can provide benefits, including a harmonious relationship between the hospital and the patient, providing a good basis for repeat treatment, encouraging the creation of patient loyalty, forming a word-of-mouth recommendation that benefits the hospital, the hospital's reputation becomes good, and the profits obtained will increase. (Saraswati, 2018).

The concept of service quality represents a business owner's endeavor to meet and exceed customer expectations. According to Fatwa et al. (2018) and Maghfur et al. (2023), service quality is achieved through efforts to satisfy customer needs and expectations. In essence, it involves striving to fulfill consumer needs and desires while maintaining or surpassing their expectations. A preliminary survey has revealed challenges faced by hospitals, such as a decrease in inpatient visits leading to a reduction in the workforce. Interviews with patients and their families have uncovered dissatisfaction with the hospital's services. Patients reported issues with unresponsive and unfriendly nurses, inconsistent doctor arrival times, and incomplete or damaged facilities at Kartika Husada Jatiasih Hospital. Consequently, many patients are dissatisfied with the services, potentially impacting their willingness to seek treatment at the hospital again.

2. Literature Review and Hypothesis

Service Quality
According to Kotler & Armstrong (2018), service quality is more difficult to define and assess than product quality; a service company can differentiate itself by consistently providing higher quality than that provided by its competitors. It has 5 dimensions of service quality as follows: (1) Reliability, directly related to the ability of employees who are able to provide services without errors and can be trusted. (2) Responsiveness: It can be interpreted as the ability of employees to serve and help quickly and responsively to customer needs. (3) Assurance guarantees can be directly related to employee behavior, such as courtesy and knowledge. (4) Empathy, related to caring about individual customer needs and desires. (5) Tangibles.

Price
According to Kotler & Armstrong (2018), price is the amount of money charged for a product or service; price is also the sum of all the values given by customers to gain benefits from owning or using a product or service. Price is used to determine the value of a product or service with the aim of making a profit and meeting predetermined targets (Indra et al., 2019). Price is an important
factor for customers when choosing a product or service (Nazaruddin, 2019). This statement is supported by research that shows that price has a relationship with customer satisfaction; when customers believe that the product price is reasonable, then purchasing behavior tends to be repeated. Conversely, if customers feel that a particular product or service is not worth the price, they will not repeat purchasing behavior (Fauzi et al., 2023; Nofrianda, 2019). In order for purchasing behavior to occur, price determination is carried out, which is one of the marketing strategies that determines the occurrence of transactions between sellers and buyers.

Customer satisfaction
Satisfaction is the level of a person's feeling after comparing the perceived performance of a product with their expectations. Furthermore, satisfaction is a form of emotional reaction to the experience of a product or service, which is based on the information used to own a product. (Noviana & Oktavia, 2023). Patient satisfaction is a feeling or condition of the patient/family who has experienced an action regarding the services provided. A patient is said to be satisfied if he or she feels happy or satisfied because the expectations and reality of using it and the service provided are fulfilled, or even if the service provided exceeds his or her expectations. The variable indicators of patient satisfaction are: friendliness of the staff, accuracy of information, responsiveness of the staff fulfillment of required facilities, cleanliness environment.

Research Conceptual Framework

![Figure 1. Research Conceptual Framework](image)

Research Hypothesis

The Influence of healthcare Service Quality on Patient Satisfaction
Service quality has a close relationship with patient satisfaction, which means that patients have hopes and perceptions about getting services (Mu'ah, 2014). The research results of Aji et al. (2022) show that the quality of health services influences patient satisfaction and patient return visits in the health problem-solving dimension compared to other dimensions, namely the physical dimension, reliability, personal interaction, and policy. Solving problems regarding complaints submitted by patients results in patient satisfaction with the quality of service. Sari (2023) explains hospital services, which consist of inpatient services, administrative services, doctor services, and nurse services, and how much the condition of the facilities influences patient satisfaction. These results are in accordance with previous research conducted by Risnawati et al. (2019) and Bramtika et al. (2019), which shows that the service quality variable has a significant effect on the consumer satisfaction variable.

H1: Healthcare service quality effect on patient satisfaction

The Effect of Price on Patient Satisfaction
Price is an important factor for customers when choosing a product or service (Nazaruddin, 2019). This statement is supported by research that shows that price has a relationship with customer satisfaction; when customers believe that the product price is reasonable, then purchasing behavior tends to be repeated. Conversely, if customers feel that a particular product or service is not worth the price, they will not repeat the purchasing behavior. These results are in accordance with
previous research conducted by Bramtika et al. (2019) and Sari et al. (2023), which shows that the price variable influences the consumer satisfaction variable. This finding is supported by research conducted by Anam, et al. (2019) that price has a positive influence on patient satisfaction. Research conducted by Mulyono (2019) also states that price influences patient satisfaction.

H2: Price influences patient satisfaction

3. Data and Methods

Research design
This research aims to analyze the influence of service quality and price on patient satisfaction at Kartika Husada Jatiasih Hospital. The data used in the research is primary data, namely a questionnaire distributed to patients hospitalized at Kartika Husada Jatiasih Hospital as respondents. The data analysis tools used in this research are descriptive analysis, simple linear regression, and multiple regression.

Method of collecting data
The types of data used in this research are documentary data and subject data. The documentary data used in this research are in the form of research journals, marketing management books, and publications at Kartika Husada Jatiasih Hospital, namely regarding the brief development history, organizational structure, and services and infrastructure of Kartika Husada Jatiasih Hospital. The subject data used in this research are the opinions, attitudes, and experiences of patients hospitalized at Kartika Husada Jatiasih Hospital as respondents. The data sources used in this research are secondary data and primary data.

Secondary data used in this research is in the form of research journals relating to research results regarding the influence of service quality and price on patient satisfaction, marketing management books, and publications at the hospital, namely regarding brief development history, organizational structure, and services and facilities. The primary data used in this research are the opinions, attitudes, and experiences of patients hospitalized at the hospital as respondents. Primary data was obtained by distributing and filling out questionnaires aimed at patients hospitalized at the hospital using a Likert scale.

Population and Sample
The population used in this study were patients at Kartika Husada Jatiasih Hospital who live in the Jatiasih District area. The total population of patients at Kartika Husada Jatiasih Hospital who live in the Jatiasih District area is unknown. The sample selection method in this research is a non-probability sampling method, namely by using sample selection based on objectives (purposive sampling). A non-probability sample selection method is a sample selection method that does not provide the same opportunity (probability) for each member of the population to be selected as a sample.

4. Results

Validity test

<table>
<thead>
<tr>
<th>Table 1. Validity Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator</td>
</tr>
<tr>
<td>Service Quality Variables</td>
</tr>
<tr>
<td>Services in sacrifice run according to patient needs.</td>
</tr>
<tr>
<td>The willingness of medical personnel to help patients.</td>
</tr>
<tr>
<td>The hospital provides professional services.</td>
</tr>
<tr>
<td>Price Variables</td>
</tr>
</tbody>
</table>

The competitive prices offered by Kartika Husada Jatiasih Hospital are cheaper than other hospitals

0.545 0.176  Valid

Kartika Husada Jatiasih Hospital provides products at reasonable prices

0.631 0.176  Valid

The prices offered by Kartika Husada Jatiasih Hospital tend to be lower than other hospitals

0.592 0.176  Valid

### Patient Satisfaction Variables

Consider returning to Kartika Husada Jatiasih Hospital

0.604 0.176  Valid

Still choose Kartika Husada Jatiasih Hospital as a better health service compared to other hospitals

0.540 0.176  Valid

Kartika Husada Jatiasih Hospital offers half-price offers for patients who frequently seek treatment

0.648 0.176  Valid

Source: Data Processed (2023)

Based on Table 1 above, the results of calculating the correlation between the scores for each question item on the service quality instrument from 125 respondents and the total score for each respondent are shown in the table above. Based on 3 questions from the variables of service quality, price, and patient satisfaction, it is valid.

### Reliability Test

#### Table 2. Reliability Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>Standard Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality</td>
<td>0.724</td>
<td>0.600</td>
</tr>
<tr>
<td>Price</td>
<td>0.776</td>
<td>0.600</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>0.604</td>
<td>0.600</td>
</tr>
</tbody>
</table>

Source: Data Processed (2023)

Based on Table 2 above, the reliability test results show that the value of the Service Quality variable (H1) is 0.724, the Price variable (H2) is 0.776, and the Patient Satisfaction variable (Y) is 0.604. Thus, Cronbach's Alpha is > 0.60. Thus, it can be concluded that each variable is declared reliable.

### Linearity Test

#### Table 3. Linearity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig of Linearity</th>
<th>Significant Level</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality on Patient Satisfaction</td>
<td>0.00</td>
<td>0.05</td>
<td>Linear</td>
</tr>
<tr>
<td>Price on patient satisfaction</td>
<td>0.00</td>
<td>0.05</td>
<td>Linear</td>
</tr>
</tbody>
</table>

Source: Data Processed (2023)

Based on Table 3 above, the significance value for linearity is 0.00. This value is <0.05, so the variables of service quality on patient satisfaction and price on patient satisfaction have a linear relationship.
Simple Linear Regression Test

Table 4. Simple Linear Regression Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficients</th>
<th>t-count</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service Quality Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>6,661</td>
<td>4,994</td>
<td>0.000</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.203</td>
<td>3,796</td>
<td>0.000</td>
</tr>
<tr>
<td>R2</td>
<td></td>
<td></td>
<td>0.105</td>
</tr>
<tr>
<td></td>
<td>Price Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>7,623</td>
<td>8,313</td>
<td>0.000</td>
</tr>
<tr>
<td>Price</td>
<td>0.2243</td>
<td>4,548</td>
<td>0.000</td>
</tr>
<tr>
<td>R2</td>
<td></td>
<td></td>
<td>0.144</td>
</tr>
</tbody>
</table>

Source: Data Processed (2023)

Based on Table 4, the service quality variable is the coefficient of determination ($R^2$) of 0.105, meaning that the contribution of service quality to patient satisfaction at Kartika Husada Jatiasih Hospital is 10.5%. In contrast, other variables, such as price, contribute to the remaining 89.5%. Service quality has a positive and significant effect at a real level of 99% on patient satisfaction at Kartika Husada Jatiasih Hospital. The service quality regression coefficient has a positive sign of 0.203. If service quality increases once, then patient satisfaction at Kartika Husada Jatiasih Hospital will increase by 0.203 times or vice versa.

In the price variable, the coefficient of determination ($R$) of 0.224, meaning that the price contribution to patient satisfaction at the hospital is 22.4%. In contrast, other variables, such as healthcare service quality, contribute to the remaining 76.6%. The price regression coefficient has a positive sign of 0.224, meaning that if the price increases once, patient satisfaction will increase by 0.224 times or vice versa.

Multiple Linear Regression Analysis

Table 5. Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficients</th>
<th>t-count</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service Quality and Price on Patient Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>4,590</td>
<td>3,322</td>
<td>0.001</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.151</td>
<td>2,872</td>
<td>0.005</td>
</tr>
<tr>
<td>Price</td>
<td>0.187</td>
<td>3,768</td>
<td>0.000</td>
</tr>
<tr>
<td>F-count</td>
<td>15,078</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>R2</td>
<td></td>
<td></td>
<td>0.198</td>
</tr>
</tbody>
</table>

Source: Data Processed (2023)

Based on Table 5, the F-count is 15.078, meaning that service quality and price together have a significant effect at a real level of 99% on patient satisfaction at the hospital. The coefficient of determination ($R^2$) of 0.198, meaning that the contribution of service quality and price to patient satisfaction is 19.8%, while other variables contribute the remaining 80.2%. Service quality has a positive and significant effect at a real level of 99% on patient satisfaction at the hospital. The service quality regression coefficient has a positive sign of 0.151, meaning that if service quality increases once, then patient satisfaction will increase by 0.151 times or vice versa, assuming constant prices. Price has a positive and significant effect at a real level of 99% on patient satisfaction. The price regression coefficient has a positive sign of 0.187.
5. Discussion

The Influence of Service Quality on Patient Satisfaction at Kartika Husada Jatiasih Hospital

Based on the research results above show that the influence of healthcare service quality supports increased patient satisfaction at Kartika Husada Jatiasih Hospital, reliability, responsiveness, certainty, empathy, and tangibles. The reliability in question is the accuracy of the diagnosis given by medical personnel. The responsiveness in question is the quick response of medical personnel in responding to patient complaints. The certainty in question is the nurse's seriousness to serve patients well. The empathy referred to includes the doctor being able to provide good information about the patient's condition. The form referred to is that medical personnel have a neat appearance when carrying out their duties. In this research, service quality indicators influence patient satisfaction. According to Kotler and Armstrong (2018), service quality is more difficult to define and assess than product quality. A healthcare service hospital can differentiate itself by consistently providing higher quality than that provided by its competitors.

This finding was confirmed by researchers conducted by Research (Sari, 2023), explaining hospital services consisting of inpatient services, administrative services, doctor services, and nurse services and how much the condition of the facilities influences patient satisfaction. These results are in accordance with previous research conducted by Risnawati et al. (2019) and Bramtika et al. (2019), which shows that the service quality variable has a significant effect on the consumer satisfaction variable. According to Munawaroh & Simon (2023), service quality or service quality means how attractive the level of service that is offered is and tries to be comparable through expectations and providing a good response to consumers.

The Influence of Price on Patient Satisfaction at Kartika Husada Jatiasih Hospital

Based on the research results show that prices support increased patient satisfaction at Kartika Husada Jatiasih Hospital through price affordability, price match with service quality, price competitiveness, and price match with benefits. The price affordability in question is the competitive price offered by the hospital, which is cheaper than other hospitals. The suitability of price to service quality in question is that the price offered by the hospital is in accordance with the quality of service provided. Price competitiveness in question means that the prices offered by the hospital are similar to the prices offered by competitors. The suitability of price to the intended benefit is that the price offered by the hospital is in accordance with the ability of the selling service. In this research, price indicators influence patient satisfaction. This statement is supported by research that shows that price has a relationship with customer satisfaction; when customers believe that the product price is reasonable, then purchasing behavior tends to be repeated. Conversely, if customers feel that a particular product or service is not worth the price, they will not repeat purchasing behavior (Komara & Fathurahman, 2024; Nofrianda, 2019).

Previous research conducted by Bramtika et al. (2019) shows that the price variable influences the consumer satisfaction variable. This result is supported by research conducted by Anam, et al. (2019) that price has a positive influence on patient satisfaction. Research conducted by Mulyono (2019) also states that price influences patient satisfaction.

6. Conclusion

Based on descriptive analysis: 1) service quality, indicators of reliability, responsiveness, certainty, empathy, and tangibles form service quality. The biggest indicator that supports the quality of services at Kartika Husada Jatiasih Hospital is tangible, where the medical staff appear polite when carrying out their duties at Kartika Husada Jatiasih Hospital. 2) Price, indicators of price affordability, price conformity with service quality, price competitiveness, and price suitability with benefits from the price. The biggest indicator that supports the price of the hospital is the suitability of price to service quality, where the price offered by the hospital is in accordance with the quality of service provided. 3) Patient Satisfaction, indicators of buying again, saying good things about the company to others, and recommending it from patient satisfaction. The biggest indicator that supports patient satisfaction at Kartika Husada Jatiasih Hospital is buying again, where patients...
consider returning to the hospital. Based on regression analysis: Service quality supports increased patient satisfaction at Kartika Husada Jatisih Hospital, Price supports increased patient satisfaction at the hospital, healthcare service quality and price supports increased patient satisfaction.

The influence of service quality and price on patient satisfaction are two important factors that must be considered by the management of hospital to improve the patient experience and maintain their loyalty. The following are some managerial implications that can be considered as management conducting professional training for all hospital staff, including doctors, nurses, and administrative staff, to ensure they have the latest skills and knowledge in health services, providing clear and detailed information regarding the costs of medical services to the patient.

**Recommendations**

It is hoped that the results of this research will provide benefits to several parties. For knowledge bearers, it is necessary to develop skills for marketers in marketing products in companies. Developing this skill can be done by reading lots of references on how to market products on the market. It is hoped that more and more people will be willing to share their experiences in marketing a product. For the leadership of the hospital, management must maintain the quality of service for medical personnel. The hospital management is advised to recalculate the prices that will be applied to patients when seeking treatment. The advantage lies in the indicator of suitability of price to service quality, where the price offered by the hospital is in accordance with the quality of service provided, and recalculations are made regarding discounts and also prizes that will be given to customers. One way is by improving service quality and prices to attract satisfaction.

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